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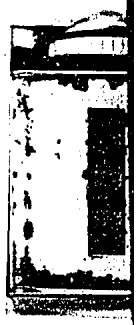

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YUGOSLAV MEDICAL SERVICES IN 1951

The following information is based on an article in Informativni priručnik o Jugoslaviji (Information Handbook on Yugoslavia), a handbook published irregularly since late 1948 by the Yugoslav Directorate for Information. Additional information on the organization, facilities, and personnel of medical schools and related establishments in Yugoslavia was published in CD-X-2703, dated 23 April 1952.

Organization

In 1951, the Yugoslav Medical Service was chiefly concerned with measures to combat epidemics of contagious diseases, such as malaria, endemic syphilis, trachoma, and parasitic infections; measures to establish sanitary working conditions for workers, improve health conditions in schools, improve health conditions for the population, combat tuberculosis, extend mother and child care, educate new medical personnel and improve training of existing personnel, expand production of medicines, and increase the supplies of medicines and other medical aids to the population.

The basic aims of the medical service have remained the same: unity of therapeutic and preventive services, bringing of as much medical assistance as possible to the population, and active participation by the population in helping to raise health standards.

Administrative changes in Yugoslavia toward increased decentralization and democratization are reflected in the administrative organization of the medical service by the transfer of as many administrative matters as possible to srez, city, and municipality and by the introduction of elements into medical administration which are characteristic of true social service.

As a result of the new law on People's Councils, councils for public health and social policy are now being organized in srez and city people's councils. Although the method of appointment and number of members are to

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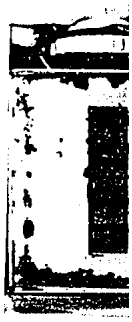


be determined by republic statutes, members of such councils are to be appointed by srez and city people's councils from among their members and from among medical technicians, representatives of mass and social organizations, and citizens interested in health protection. Such councils should consist of 12-25 members.

To achieve unity of therapeutic and preventive services, public health centers are now being established in srezes and cities where conditions are favorable. The centers have under their jurisdiction all medical establishments of a given area, except hospitals with more than 100 beds. Through these centers, the councils for public health and social policy implement preventive medical care by measures to counteract contagious diseases and tuberculosis and by measures to extend mother and child care, clinical service, sanitation and health, health education, and similar services.

Since some types of preventive medical service cannot be set up for every srez but must be organized in larger or smaller areas than a srez, and since ten or more srezes may face a mutual medical problem, the need was felt for establishing specialized medical agencies which would study over-all problems faced by and work performed by medical establishments. These agencies would present recommendations for the solution of joint medical problems to the srez or republic councils for public health and social policy and would offer specialized aid to medical establishments. As a result, the recommendation was made that oblast advisory health councils, made up of directors of large medical establishments and administrators of people's health centers of a given area, be established. Republic councils for public health and social policy will supervise and manage medical service on the republic level. Medical service on the federal level will be under the jurisdiction of the federal Council for Public Health and Social Policy.

Pertinent Law Decrees

The following decrees dealing with public medical service were supplemented or changed in 1951: Resolution on the Establishment of a Rehabilitation Center for War Disabled, Regulations on Medical Care for War Disabled and the Issuing of Prosthetic Devices, Supplement to the Order on Inoculation Against Tuberculosis, Regulations for the Establishment of a Federal Institute for Medicinal Research, and Order on Special Allowances to Employees of Medical Establishments Where Their Life or Health May Be Endangered.

Appropriations

The attention devoted to public medical service in Yugoslavia is reflected in the steady increase in budget appropriations for this service from the national income. Appropriations in 1951 (6,141,700,000 dinars) were 23.6 percent higher than in 1950 (4,692,259,000 dinars).

Health Inspectorate

The Health Inspectorate is mostly concerned with community health, hygienic working conditions, food sanitation, school hygiene, and hygienic conditions in the railroad and maritime transportation services.

Community health deals primarily with the water supply and sewage problem. Until this problem is solved, it will not be possible to eliminate diseases such as typhoid fever, dysentery and other intestinal diseases, children's diarrhea, intestinal parasites, skin infections, etc. Extensive surveys of the water supply and sewage problem have been made. They were published in 1951 in Bilten (Bulletin) No 2, of the federal Council for Public Health and Social Policy.

Community health agencies have prepared plans and sketches for modern health institutes and disinfection stations, with bath and with and without laundry. They have studied the problem of minimum health standards in planning new and reconstructing old buildings, they have prepared regulations for health measures at construction sites, and they have prepared and forwarded recommendations for sanitation measures and disposal of sewage in communities without a water system. These agencies have studied the problem of sanitary living quarters, use of disinfectants, location of hospitals, improvement of public parks, and minimum health standards for bakeries. Community health agencies have prepared a draft Order on the Protection of Watercourses. These agencies are studying goiter ailments, from which more than one million Yugoslavs suffer. Iodine salts are now prepared in the Kreka salt plant and distributed through republic salt enterprises.

The Health Inspectorate's Department for Hygienic Working Conditions, in cooperation with the Labor Inspectorate, has made 6,946 initial and follow-up surveys in enterprises. The department has made surveys of working conditions of women employed in industry; of workers' housing in some large enterprises, agricultural estates, and lumber enterprises; and of silicosis among miners. As a result, the health of Trepca mine workers has improved; sickness has decreased in Sisak, Slavonski Brod, "Jugovinil," and "Tvorpan"; and sanitary and health conditions on all work sites have improved so that few outbreaks of contagious diseases have occurred of late.

The Health Inspectorate has suggested that production of medical equipment be standardized and has requested that medical production assure a sufficient number of bandages for first-aid cabinets in enterprises. Approximately 760 enterprises have dispensaries, one third of which operate full time.

In 1951, the Food Sanitation Department of the Health Inspectorate made regular inspections of enterprises dealing in production, processing, or sale of food; checked on the health of personnel employed in such enterprises; and inspected food in public dining rooms, cooperative centers, boarding schools, and similar places. A survey of more than 1,200 public eating places and laboratory tests of several thousand dishes served in these places established that the food was not uniform or sufficient in quantity or caloric content, that it did not contain sufficient proteins, and that the selection of food was poor.

As a result, reporting on food poisoning was made obligatory, material was compiled for a proposed decree on quality of and specifications for foods, dietetic surveys were made in Yugoslavia's ten largest hospitals, and manuscripts were gathered and sent to the printers for a handbook on laboratory methods to be employed in medical and similar laboratories.

The federal Commission for Food Sanitation made studies on milk in Yugoslavia, including its production, government purchase, sterilization, processing, distribution, and sanitary inspection of milk; its role as a transmitter of contagious diseases was also studied. The commission issued recommendations for further work in these fields.

The Health Inspectorate's School Hygiene Department is gradually recovering from the ravages caused by the war. In 1951, 176 physicians and 323 assistants were actively engaged in the care of school children. School children were given a total of 1,277,360 medical examinations, 335,081 of which were preventive (these statistics do not include Croatia and Macedonia).

In cooperation with other agencies interested in child welfare, school hygiene agencies have prepared new designs for desks and benches, provided instructions for health regulations in student resorts, and provided assistance to the federal Bureau of Statistics in preparing basic health questions to be entered in questionnaires used in the census of educational institutions.

Increased attention is being devoted to the maintenance of hygienic conditions on railroads. Equipment for the extermination of vermin and rats and for disinfection has been modernized. A mobile shower with a disinfectant unit has been constructed. Drinking water at stations is inspected periodically. In 1951, 79 disinfections cleaned 59,945 cubic meters of space in railroad living quarters and passenger cars (622 cars), 8,320 railroad cars were disinfected, and rats were exterminated in 38 different projects, including the railroad station and locomotive yard in Belgrade.

Contagious Diseases

Contagious diseases and the mortality rate from them were as follows:

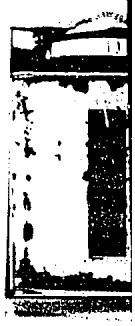
	1950			1951		
		Mortality Rate			Mortality Rate	
	Cases Reported	No	Percent	Cases Reported	No	Percent
Remittent fever	--	--	--	--	--	--
Typhus	290	24	8.3	531	23	4.3
Typhoid fever	4,583	247	5.4	4,753	175	3.7
Paratyphoid	966	15	1.5	1,465	16	1.1
Dysentery	5,650	87	1.5	4,261	53	1.2
Scarlet fever	17,730	37	0.2	11,241	14	0.1
Diphtheria	4,794	248	5.2	4,481	205	4.6
Smallpox	7,817	45	0.6	16,275	324	2.0
Whooping cough	7,927	79	1.0	12,690	129	1.0

Although the above figures show that there were more cases of some contagious diseases in 1951 than in 1950, this was actually not so, but rather, more cases of typhus, typhoid fever, paratyphoid, smallpox, and whooping cough were reported in 1951.

In the past 2 years, there has been no occurrence of remittent fever. Typhus is still to be found in areas where fleas are plentiful, and measures to counteract it include the use of DDT powder and improving the health and education of the population. Scarlet fever cases are decreasing slowly, but the disease is less virulent, and therefore is less inclined to be fatal. Penicillin is now available against scarlet fever. In 1951, measures were undertaken to vaccinate children against diphtheria, but because of poor organization, the results were neither complete nor thorough. Protective measures against smallpox and whooping cough include the use of serums against the one and vaccines against the other.

Malaria

Malaria has been practically eradicated in Yugoslavia because of measures taken after World War II. In addition to UNICEF assistance, Yugoslavia spent a total of 45 million dinars in 1948 and 1949 to combat malaria. The number of malaria cases in 1937 - 1951 were as follows:



1937	1938	1947	1948	1949	1950	1951
244,769	226,543	78,519	31,411	8,562	585	386

Endemic Syphilis and Venereal Diseases

The campaign against endemic syphilis in the past 3 years has involved vast sums of money, equipment, and specialized personnel. UNICEF has lent a great deal of assistance in the form of penicillin, automobiles, etc.

The plan to combat syphilis set up in 1949 called for a careful search to be made for traces of the disease and called for treatment to be completed by 1953 in all srezes where there were indications of the disease, particularly in Serbia and Bosnia-Hercegovina, and to a lesser degree in Macedonia and Montenegro. Antisyphilitic measures were taken in Serbia and Bosnia-Hercegovina, where crews were assigned to each srez, and a laboratory was set up to accommodate a group of srezes. The search was carried out from village to village. Clinical and serological tests were made, and treatment was given while the search continued. By the end of 1951, the search was carried out in 50 srezes, but work was completed only in 29. In some srezes, the search included blood tests of 88 percent of the population. By the end of 1951, 1,073,086 clinical and serological examinations were made, and 81,957 individuals were treated (7.6 percent of the total examined). Between 2 and 25 percent of the people examined were infected.

A year after treatment is completed, a follow-up blood test is made, and a second follow-up blood test is made a year after that. Approximately 150,000 follow-up blood tests have been made; 84 percent of the first follow-up tests and 90 percent of the second follow-up tests were negative. Treatment consists of procaine penicillin supplied by UNICEF. Ordinarily 600,000 units are administered every other day until a total of 3.6 million to 6 million units have been administered. To date, Yugoslavia has spent 30 million dinars of its own resources in the campaign against syphilis.

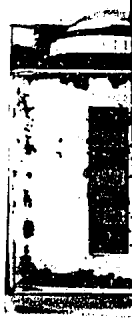
Concurrent with the campaign against endemic syphilis is the campaign against sporadic cases of syphilis and against other venereal diseases such as gonorrhea. Successful use of antibiotics is particularly evident in treatment of gonorrhea. Dermatological-venereal clinics have had some difficulty recently in finding cases of gonorrhea for clinical observation by students.

Mycotic Infections

Mycotic infections are found mostly among peasant children in Bosnia-Hercegovina, Macedonia, the Kosmet, and to some extent in Montenegro and Serbia. In Croatia and Slovenia, only isolated cases of such infections have occurred. An extensive campaign against mycotic infections is being waged in Bosnia-Hercegovina, Macedonia, and Serbia.

The campaign in Bosnia-Hercegovina was conducted by a mobile crew equipped with X-ray apparatus and a 30-bed hospital. By the end of 1951, 1,468 cases of mycotic infections among children were discovered and treated. In Macedonia, approximately 80,000 school children were examined, and all infected children were treated. In Serbia, in 1951, hospitals for mycotic children were established in Belgrade, Nis, and Pec, and it is planned to establish two more in Krupanj and Pristina. By the end of 1951, 76,960 children and adults were examined; 4,057 or 5.2 percent were infected. In Montenegro, where children in schools and centers were examined, 200 cases of infection were discovered.

Yugoslavia received X-ray apparatus and equipment for mobile hospitals from UNICEF to be used in the campaign against mycotic infections.



Trachoma

Trachoma is widespread in the Banat, Backa, Srem, Macva, and Podrinje areas in Serbia; the Posavina and eastern Bosnia in Bosnia-Hercegovina; Medjumurje in Croatia; and in two Slovenian srezes. The first postwar measure undertaken by the federal government to combat trachoma, which was widespread during the war, was to curb its further spread. Particular attention was devoted to children's centers and trade school centers. Centers were established where sick children could be placed in quarantine and treated. Then, steps were taken to make a careful search in stricken areas and extend treatment where necessary.

Slovenia, first to be covered, now has only 1,000 cases of trachoma. The campaign against trachoma is the most extensive in Serbia. The campaign is being directed by the Eye Clinic of the Medical Faculty in Belgrade. Two hospital wards, nine special dispensaries, and 171 special stations have been established to combat the disease. Out of 1,632,219 persons examined, 46,315 (18,967 children) were infected. Twenty-five percent of the population were infected in Pancevacki Rit, Serbia. The success of the campaign in Serbia is evident from the fact that in Pancevacki Rit, trachoma infection has been reduced from 25 to 5 percent. In Croatia, the campaign against trachoma is managed by the Central Health Institute in Zagreb, with the assistance and under the supervision of the Eye Clinic of the Medical Faculty in Zagreb. Three special centers, three dispensaries, 27 stations, and numerous auxiliary stations in small villages have been established to combat the disease. To date, 198,203 individuals have been examined from Bjelovar, Djurdjevac, Koprivnica, and Medjumurje srezes. Of this number, 8,487 were found to be infected, including 4,160 children. In Bosnia-Hercegovina a special hospital, a hospital ward, 18 dispensaries, and four children's centers have been established to combat the disease. To date, 2,400 cases of trachoma have been discovered among the children examined (this includes all children's centers in the republic and all school children in the Posavina region).

Tuberculosis

It is estimated that 300,000 individuals in Yugoslavia have pulmonary tuberculosis, and 30,000 have some other type of tuberculosis. The mortality rate approximates 33,000 or 10 percent of those stricken with the disease.

Before the war, Yugoslavia had only 49 tuberculosis dispensaries and 2,880 hospital beds for treatment of tuberculosis. At present, Yugoslavia has 179 tuberculosis dispensaries, compared with 147 in 1950, and 13,009 hospital beds, compared with 11,117 in 1950. There are 296 doctors on duty in tuberculosis establishments, compared with 190 in 1950, and 310 nurses, compared with 229 in 1950. Tuberculosis dispensaries have made examinations as follows:

	Initial Examinations	Second Examinations	Follow-up Examinations	Total
1950	613,573	716,536	273,517	1,603,626
1951	287,721	774,296	371,780	1,433,773 [sic]

The number of initial examinations decreased in 1951, because patients came to be examined on the recommendation of a physician rather than streaming in on their own initiative, as they had in 1950. The number of follow-up examinations increased in 1951, because dispensaries had more time available for such examinations. As a result, work in tuberculosis dispensaries is gradually becoming preventive rather than clinical.

In Yugoslavia, 50,000 tuberculosis patients are hospitalized each year. If Yugoslavia could have one bed for each fatal case, 30,000 beds would be necessary instead of the 13,029 now available.

BCG vaccination against tuberculosis is compulsory for every person under 25. To date, more than 3 million have been tested with BCG vaccine, while more than 1½ million were vaccinated against tuberculosis. Yugoslav organizations such as the People's Front, trade unions, the AFZ (Antifasisticki front zena, Association of Antifascist Women), and particularly the Red Cross have helped in the campaign against tuberculosis. The UNICEF and the ITC are also helping in this campaign.

Mother and Child Care

Since children up to 14 years of age (30.1 percent of the population) and women from 15 to 50 years of age (28 percent) make up almost 60 percent of the Yugoslav population, their medical care ranks first. The medical service must first of all combat the high rate of sickness and mortality among children, the high mortality of women in childbirth, the lack of sufficient technical assistance at birth, the excessive number of miscarriages, and the health problems connected with the rapid increase in women employed in industry.

The number of establishments for mother and child care has increased as follows:

	1950	1951
Children's dispensaries and advisory centers	423	454
Children's hospitals	12	15
Milk dispensaries	19	21
School dispensaries and clinics	73	91
Dispensaries and advisory centers for women	276	310
Maternity wards in hospitals	109	133
Outpatient delivery clinics	116	137
Nursing homes for mothers	3	3
Total beds for children	3,424	3,875
Total beds for women	3,249	3,380

In addition to new children's wards being opened in 1951, a new hospital for children's surgery and another for pulmonary tuberculosis were built. Although the number of medical technicians and doctors connected with mother and child care has increased, it is still insufficient. There are currently 194 gynecological technicians, 181 children's doctors, 313 nurses, and more than 1,900 midwives.

The following number of children were examined in the following establishments in 1951:

	Total Examinations	Preventive Examinations
Children's dispensaries	865,026	--
Children's advisory centers	141,738	141,738
School dispensaries and clinics	1,277,360	335,081
Nurseries	91,830	12,592
Total	2,375,954	489,411

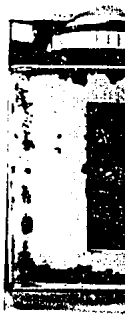
Of the total number of children (up to 14 years of age) treated in hospitals, 35 percent were infants. Children's ailments treated in hospitals and children's dispensaries were as follows (in percent):

	Hospital Wards	Dispensaries
Respiratory ailments	30.4	22.88
Stomach ailments	14.5	16.16
Tuberculosis symptoms	8.2	1.5
Skin diseases	2.8	6.84
Grippe	4.0	6.2
Pulmonary tuberculosis	4.5	0.55
Rickets	1.5	2.91
Anemia	0.3	3.89
Ear ailments	1.8	2.6
Intestinal parasites	0.8	1.9
Scabs	0.3	1.09

The mortality rate of infants up to one year of age ranges from 5 percent in Zagreb and 9.9 percent in Slovenia to 18-20 percent in Bosnia-Hercegovina, the Vojvodina, Kosmet, and Slavonia. The mortality rate in childbirth in obstetrics wards decreased from 3 percent in 1950 to 2 percent in 1951, ranging from less than one percent in Slovenia and Serbia to 5.9 percent in Bosnia-Hercegovina. No data is available on the mortality rate of women who gave birth without any technical assistance. These women constitute 70 percent of the women who give birth.

The problem of milk supply for children has been partially solved by the construction of milk canneries in Osijek and in Zupanja. Central dairies have been constructed or are under construction in Belgrade, Zagreb, Ljubljana, Sarajevo, Skoplje /and Novi Sad/. The dairies in Belgrade, Ljubljana, and Novi Sad are already supplying pasteurized milk in bottles.

The Order on Allowances for Dependent Children to Blue- and White-Collar Workers is another measure assuring the welfare of children. In 1951, 39 billion dinars were assigned for such allowances.



Social security and cultural agencies are also interested in the welfare of mothers and children. The Council for the Care of Mothers, Children, and Youth has been organized within the federal Council for Public Health and Social Policy, which does research and coordinates the work of all agencies concerned with child welfare.

Hospitalization

Hospital service has been as follows:

	1939	1951
Number of hospital beds	23,524	39,189
Number of beds per 1,000 inhabitants	1.51	2.41
Number of patients hospitalized	433,344	845,277
Number of days hospitalized	6,000,000	11,109,662
Number of doctors	927	1,607
Number of auxiliary medical personnel	6,510	5,983

The number of beds increased in general hospitals, some special hospitals, and tuberculosis hospitals, but beds in mental hospitals remained about the same. In 1951, there were 217 hospitals, 157 of which were general, and 60 special hospitals, with a total of 51,957 beds. In addition, there were 3,250 outpatient beds in outpatient delivery clinics, clinics, and dispensaries, bringing the total number of beds up to 55,207 or 3.39 beds per 1,000 inhabitants, compared with 3.26 in 1950. However, 25-30 percent of these beds do not meet standard requirements.

Hospital beds were distributed in the republics as follows (per 1,000 inhabitants):

	1948	1950
Serbia	2.59	3.81
Croatia	4.59	4.86
Slovenia	4.41	5.34
Bosnia-Hercegovina	1.8	1.97
Macedonia	1.85	2.16
Montenegro	3.87	3.83

Yugoslav hospitals employ 1,789 doctors and 7,544 auxiliary technicians, 1,414 of whom have had secondary medical training. Medical personnel are not uniformly distributed throughout Yugoslavia. Bosnia-Hercegovina and Macedonia have the smallest number. In 1951, 882,676 patients were cared for in Yugoslav hospitals, 845, 277 of whom were hospitalized in general hospitals, compared with 773,012 in 1950. About 50 percent of all hospital patients were treated under the Social Security program.

Dispensary and Clinical Service

Prior to World War II, dispensary and clinical service was practically non-existent in its present form. Although workers' insurance organizations such as the Central Insurance Bureau for Workers (Sredisni ured za osiguranje radnika), the Brotherhood Treasury (Bratinska blagajna), Humanitarian Fund for Government Transportation Personnel (Humanitarni fond drzavnog saobracajnog osoblja), Belgrade Commercial Youth (Beogradska trgovacka omladina), Merkur, and others were equipped with dispensaries and clinics, barely 750,000 individuals and approximately 1,500,000 dependents were insured. Dispensary and clinical services are now available to the entire Yugoslav population.

The number of dispensaries, clinics, doctors, and examinations has been as follows:

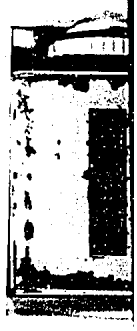
	No of Dispensaries and Clinics	No of Dental Clinics	No of Doctors	No of Examinations and Checkups
1939	162	28	499	2,726,226
1949	1,114	441	2,178	23,085,883
1950	1,165	526	2,421	22,871,161
1951	1,250	567	2,592	21,232,650

The decrease in the number of examinations and checkups in 1951 may be the result of improvement in the standard of living, particularly in the diet of the population.

Approximately 70 percent of the examinations were examinations of members of Social Security, for they are given priority.

From surveys of dispensaries and clinics, the following illnesses were most frequent in 1949 (in percent):

	Yugoslavia	Serbia	Croatia	Bosnia-Hercegovina	Slovenia	Macedonia	Montenegro
Stomach ailments	10.3	10.3	9.2	9.9	11.5	14.7	11.4
Respiratory ailments	9.3	9.9	8.8	7.9	8.5	12.6	8.7
Brain, nerve, and sensory ailments	6.2	3.7	12.1	3.2	4.8	4.0	3.0
Rheumatism	5.6	5.2	6.3	4.7	6.9	2.6	7.5
Total	8.1	7.6	8.7	8.2	8.6	4.1	8.2
Injuries on the job	5.0	4.4	5.8	5.8	5.4	2.0	5.2
Other injuries	3.1	3.2	2.9	2.4	3.2	2.1	3.0
Pus inflammation of the tissues	3.7	3.4	3.6	3.5	5.6	3.2	3.8



The blood-transfusion service is one of the most important services of the Yugoslav medical service. In 1950, there were 18 blood-transfusion establishments, which increased to 23 in 1951. Blood-bank reserves are increasing steadily; the average monthly supply of blood in 1951 amounted to almost 2,000 liters.

Yugoslavia, which abounds in mineral springs, some of which, because of their quality and medicinal composition, have become prominent mineral-spring resorts, has 28 large and 23 small mineral springs, with a total of 10,822 hotel beds. The best-known springs are the Vrnjacka Banja and Rogaska Slatina, which are particularly effective for stomach, liver, and kidney ailments. The Niska Banja, Vranjska, Mataruska, Koviljaca, Topusko, Lasko, Varazdinske Toplice, Ilidza, Vrucica-Teslic, and Krapinske Toplice springs are known as springs for rheumatism, neuralgia, and gynecological ailments; the Dobrna, for gynecological ailments. The Lipik springs are rich in iodine, while the Srebrenica contain large amounts of arsenic. The Vranjska Banja springs are rare thermal springs; their average temperature is 88 degrees centigrade, but one of the springs has a temperature of 92 degrees centigrade. The Bukovice and Radenci springs are famous for their potable mineral water.

Social Security members and the war disabled have priority for treatment at Yugoslavia's mineral springs.

Pharmaceutical Service

The problem of supplying the population with medicines is no longer critical. Supplies of medicine are sufficient in quantity and variety. Ninety percent of medicines in demand are produced domestically, while only 30 percent of such medicines were produced domestically before the war. Numerous biological medicines such as insulin, vitamins, hormone compounds, serums, and vaccines; antibiotics, including all types of penicillin; all types of alkaloids made from opium; and digitalis compounds and other types of compounds in daily demand are produced domestically so that Yugoslavia is becoming less and less dependent on foreign imports. Some factories, such as the "Pliva" Factory, manufacture pharmaceutical chemicals for export. Medicines are tested before they reach the consumer market.

Yugoslavia has 912 pharmacies, compared to 382 in 1950, and 12 pharmaceutical stations, compared to nine in 1950. However, at least 600 additional pharmacies are needed. They should be distributed particularly in Bosnia-Hercegovina, Macedonia, and Montenegro. Yugoslavia has 1,781 pharmacists employed in pharmacies and 312 pharmaceutical assistants, compared to 1,578 pharmacists in 1950.

Social Security members and their dependents obtain medicines free of charge. Since 1949, they have been responsible for consuming more than one third of the medicines consumed.

Yugoslavia is the source of some highly important medicinal herbs such as opium, camomile, sage, linden, gentian, and "velebilje," most of which are exported, only 10 percent being retained for domestic consumption.

Medical Service Personnel

Compared to 5,100 doctors in 1950, in 1951, the Yugoslav public medical service had 5,565 doctors, 61 of whom were foreign citizens. Of the total number of doctors, 2,254 were specialists (40.5 percent), and 602 were specializing (10.8 percent). In addition, Yugoslavia had 242 doctors who were not practicing medicine because of old age or illness.

In 1951, 707 doctors and 191 pharmacists received diplomas. During the 1951 - 1952 school year, 7,430 students were enrolled in medical faculties, 1,214 in pharmaceutical faculties, and 531 in stomatological faculties.

Yugoslavia has 53 secondary medical schools, with a total of 5,490 students. From 1945 - 1951, 3,440 pupils graduated from secondary medical schools, including 1,900 doctor's assistants, 476 medical assistants, 185 medical laboratory technicians, 168 pharmaceutical assistants, 242 dental technicians, 222 dentists, and 81 delivery-room attendants.

Professional Associations

The Federation of Medical Associations and the Federation of Pharmaceutical Associations have been organized to raise professional standards. The Federation of Associations of Doctor's Assistants (medical nurses) is being organized.

The Federation of Medical Associations includes six republic medical associations, with a total of 64 sections and 75 provincial branches. To date, the federation has held a plenary session, a congress of surgeons where traumatology was the main subject on the agenda, and a scientific meeting of otolaryngologists. The republic associations, sections, and branches have held a large number of scientific, discussion, and similar meetings. Original studies were read, interesting cases presented, and problems discussed. Assistance was extended by medical associations to agencies of the medical service in connection with surveys of and instruction for local organizations regarding concrete problems.

The Federation of Medical Associations publishes the scientific periodical Acta medica Jugoslavica, and each republic medical association, with the exception of the one in Montenegro, publishes a scientific periodical. The branch of the Serbian Medical Association in Novi Sad also publishes a periodical.

The Federation of Pharmaceutical Associations includes five republic associations, with a total of 14 sections and 19 branches. Numerous scientific and organizational meetings have been held. The federation has established connections and cooperation with foreign pharmaceutical organizations in France, England, Belgium, Denmark, Sweden, Norway, Switzerland, and Western Germany. The federation publishes the periodical, Acta pharmaceutica Jugoslavica, and the republic pharmaceutical associations in Belgrade, Zagreb, and Ljubljana publish scientific periodicals.

Although doctor's assistants in Serbia and Croatia have organized associations, a federation cannot be organized until the other republics have organized similar associations.

Medical Publications

In addition to the medical and pharmaceutical periodicals mentioned above, 29 scientific and popular medical periodicals are published in Yugoslavia.

The "Medicinska Knjiga" (Medical Book) Publishers have published 52 scientific and popular medical books, totaling 185,680 copies, including Zbornik kongresa higijenicara u Opatiji (Code of the Congress of Hygienists in Opatija); Otorinolaringologija (Otolaryngology), by Professor Doctor A. Sercer; Atlas operativne torakoskopije (Atlas of Operational Thoracoscopy), by Dr Stanko Dujmusic; and Plucne bolesti (Pulmonary Diseases), by Prof Dr Aleksandar Radosavljevic. Publishing houses in Belgrade, Zagreb, Ljubljana, Sarajevo, Skoplje, and Novi Sad have published scientific and popular books in the field of medicine.

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